

Application No. 09/955,722
SD-6436.1 S-97675

CLAIM AMENDMENTS

- Please amend the Claims as follows:

Claims 1-44 (CANCELLED)

45. (NEW) A protected MEMS device, comprising:

a released MEMS device disposed on a substrate; and
a protective coating directly contacting and protecting the released MEMS device;
wherein the protective coating is selected from the group consisting of
parylene, carbon, amorphous carbon, diamond-like carbon, perfluoropolyether,
and perfluorodecanoic carboxylic acid;
wherein the protective coating is sufficiently thick so as to immobilize any movable
elements of the released MEMS device; and
wherein the protective coating is insoluble in water and organic solvents.

46. (NEW) The protected MEMS device of claim 45, wherein the substrate comprises a wafer comprising a plurality of released MEMS devices coated directly with the protective coating.

47. (NEW) The protected MEMS device of claim 46, wherein the protective coating is excluded from covering any wafer streets.

48. (NEW) The protected MEMS device of claim 45, wherein the substrate comprises a die.

49. (NEW) The protected MEMS device of claim 48, wherein the die is mechanically attached and electrically interconnected to a package.

50. (NEW) The protected MEMS device of claim 48, wherein the die is wirebonded to the package.

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51. (NEW) The protected MEMS device of claim 48, wherein the die is flip-chip bonded to the package.
52. (NEW) The protected MEMS device of claim 45, wherein the protective coating comprises parylene; and wherein the parylene coating comprises one or more polymers selected from the group consisting of poly-para-xylylene, poly-para-xylylene modified by the substitution of a chlorine atom for one aromatic hydrogen, and poly-para-xylylene modified by the substitution of a chlorine atom for two aromatic hydrogens.
53. (NEW) The protected MEMS device of claim 45, wherein the protective coating comprises parylene; and wherein the parylene coating comprises a copolymer compound formed by blending a reactive parylene monomer with a reactive material.
54. (NEW) The protected MEMS device of claim 53, wherein the reactive material comprises a monomer comprising one or more elements selected from the group consisting of silicon, carbon, and fluorine.
55. (NEW) A protected wafer, comprising:
a wafer comprising a plurality of released MEMS devices disposed on the wafer;
and
a protective coating of parylene directly contacting and protecting the released MEMS devices;
wherein the protective coating is sufficiently thick so as to immobilize any movable elements of the released MEMS devices.
56. (NEW) The protected wafer of claim 55, wherein the protective coating of parylene is excluded from covering any wafer streets.

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57. (NEW) A protected MEMS device, comprising:
a released MEMS device disposed on a die; and
a protective coating of parylene directly contacting and protecting the released MEMS device;
wherein the protective coating is sufficiently thick so as to immobilize any movable elements of the released MEMS device.
58. (NEW) The protected MEMS device of claim 57, wherein the die is mechanically attached and electrically interconnected to a package.
59. (NEW) The protected MEMS device of claim 58, wherein the die is wirebonded to the package.
60. (NEW) The protected MEMS device of claim 58, wherein the die is flip-chip bonded to the package.